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State of New Mexico
LEGISLATIVE FINANCE COMMITTEE

416 State Capitol, Santa Fe, New Mexico 87501
(505) 986-4550 Fax: (505) 986-4644

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DIRECTOR



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Representative Luciano "Lucky" Varela
Representative Samuel F. Vigil
Representative Jeannette Wallace

August 1, 1996

Mark Weidler, Secretary
Department of Environment
1190 St. Francis Drive
Santa Fe, NM 87503

RECEIVED

AUG 07 1996

NM ENVIRONMENT DEPARTMENT
OFFICE OF THE SECRETARY

Dear Mark:

Attached you will find my letter and attachments to Ms. Kathleen McGinty of the Council on Environmental Quality expressing my concerns about the rider to S.B. 1745 (Senate Amendment 4085) expediting the opening of the Waste isolation Pilot Project and the recent finding of water and lead at the WIPP site.

The information contained in the attachments indicates that lead levels increase as water migrates from the exhaust shaft to the waste handling shaft, but does not explain the reason for that increase. I am sure you share my concern that the health and safety of New Mexico's citizens should be assured before the WIPP begins operations.

Sincerely,

A handwritten signature in black ink, appearing to be "Max Coll", written over a horizontal line.

Representative Max Coll
Vice-Chairman

MC:js/gm
Attachments

960801



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Representative Jeannette Wallace

July 31, 1996

Honorable Kathleen McGinty, Chair
Council on Environmental Quality
Washington, D.C. 20501

Dear Ms. McGinty:

It is with sincere concern for the citizens of New Mexico that I write you. As you are probably aware, a rider has been attached to S.B. 1745 (Senate Amendment 4085) rushing the opening of the Waste Isolation Pilot Project near Carlsbad, New Mexico. The bill eases many substantive and procedural licensing requirements on the WIPP facility provided in the WIPP Land Withdrawal Act of 1992. It is my understanding from the Senate debate that the New Mexico Senate delegation and staff of the EPA and DOE all supported this amendment. I believe that the supporters in Congress and the Executive have not been informed of recent developments at the site.

Recent information shows that problems at the site may be significant enough to jeopardize permitting under the current stringent permitting process. Specifically, the site is collecting large amounts of lead laden water. The site managers show minimal concern; their explanation of how more than 11,000 gallons of hazardous level lead laden water have accumulated at the site is not convincing. The water is said to result from both seepage and condensation in the exhaust shaft, though the source of the seepage (at the 105-foot level of the 2,000 foot shaft) has not been positively identified. Although data suggests that the seepage varies seasonally, one possible source suggested by WIPP officials is broken water lines within the complex.

Seepage estimates made by different observers at the same time vary from one to four gallons per minute. While continuous use of ventilating fans may prevent most of the water from reaching the bottom of the shaft, it is unclear how water will be kept out of the WIPP site during the intended 1,000-year life of the project.

Further, the water is picking up lead. WIPP officials suggest that the source of the lead is thought to be fencing and other materials in the exhaust shaft and the sump beneath the exhaust shaft. However, WIPP officials fail to explain why lead concentrations increase during the water's migration from the exhaust shaft to the waste handling shaft. The most contaminated samples

Honorable Kathleen McGinty

July 31, 1996

Page 2

showed lead levels more than four times the hazardous standard for lead. As a result, pumped water has been handled as a hazardous waste.

Attached you will find material developed by Westinghouse, the site operator, on the issue of lead and water at the WIPP site. It is also my understanding that although they have pumped the site, the problem waters continue to accumulate. This site must protect New Mexicans living and working near the site and downstream Pecos water users in New Mexico and Texas.

I urge you to help New Mexicans in demanding that appropriate officials conduct proper evaluations to address health and safety concerns at the WIPP site.

Sincerely,

A handwritten signature in black ink, appearing to read "Max Coll". The signature is fluid and cursive, with a long horizontal stroke at the beginning.

Representative Max Coll
Vice-Chairman

MC:js/gm
Attachments

cc: Carol Browner



Westinghouse
Electric Corporation

Government Operations

WZ:96:03306

DA:96:2238

Waste Isolation Division

Box 2078

Carlsbad New Mexico 88221

February 12, 1996

Ms. Anna Walker
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
2044 Galisteo St. Building A
PO Box 26110
Santa Fe, New Mexico 87502

Subject: CHANGE IN HAZARDOUS WASTE GENERATOR CLASSIFICATION

Dear Ms. Walker:

This letter is to submit a Notification of Regulated Waste Activity form (EPA Form 8700-12) to reclassify the Waste Isolation Pilot Plant as a large quantity generator. This is a follow-up of previous informal notifications made to the New Mexico Environment Department between September - December, 1995.

If you have any questions regarding this submittal or require any additional information, please contact Mr. S. C. Kouba at (505) 234-8332 or Mr. R. R. Chavez at (505) 234-8821.

Sincerely,

A handwritten signature in cursive script, appearing to read "K. S. Donovan".

K. S. Donovan, Manager
Environmental, Safety, and Health

LPD/RRC:pa

Attachment

cc: B. Bennington, CAO

Please refer to the instructions for filling this form before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

A. First Notification

B. Subsequent Notification
(Complete Item C)

C. Installation's EPA ID Number

N M 4 8 9 0 1 3 9 0 8 8

II. Name of Installation (Include company and specific site name)

W A S T E I S O L A T I O N P I L O T P L A N T

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

J A L H W Y 3 0 M I L E S E A S T

Street (Continued)

City or Town

C A R L S B A D

State

Zip Code

N M

8 8 2 2 1 -

County Code

County Name

0 3 E D D Y

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

P O B O X 3 0 9 0

City or Town

C A R L S B A D

State

Zip Code

N M

8 8 2 2 1 -

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

D O N O V A N

(First)

K E V I N

Job Title

M A N A G E R *

Phone Number (Area Code and Number)

5 0 5 - 2 3 4 - 8 3 2 5

VI. Installation Contact Address (See instructions)

A. Current Address

Location Mailing Other

B. Street or P.O. Box

2 0 7 8 M S - 1 5 0

City or Town

C A R L S B A D

State

Zip Code

N M

8 8 2 2 1 -

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

U S D E P A R T M E N T O F E N E R G Y

Street, P.O. Box, or Route Number

P O B O X 3 0 9 0

City or Town

C A R L S B A D

State

Zip Code

N M

8 8 2 2 1 -

Phone Number (Area Code and Number)

5 0 5 - 8 8 7 - 8 1 0 1

B. Land Type

F

C. Owner Type

F

D. Change of Owner Indicator

Yes

No

(Date Changed)

Month Day Year

ID - For Official Use Only
 N H 4 8 9 0 1 3 9

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to instructions)

<p>A. Hazardous Waste Activity</p> <p>1. Generator (See instructions) <input type="checkbox"/> a. Greater than 1000kg/mo (2,200 lbs.) <input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.) <input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)</p> <p>2. Transporter (Indicates Mode in boxes 1-4 below) <input type="checkbox"/> a. For own waste only <input type="checkbox"/> b. For commercial purposes</p> <p>Methods of Transportation: <input type="checkbox"/> 1. Air <input type="checkbox"/> 2. Rail <input type="checkbox"/> 3. Highway <input type="checkbox"/> 4. Water <input type="checkbox"/> 5. Other - specify _____</p>		<p><input checked="" type="checkbox"/> 3. Treater, Storer, Disposer (if installation) Note: A permit is required for this activity; see instructions.</p> <p>4. Hazardous Waste Fuel <input type="checkbox"/> a. Generator Marking to Burner <input type="checkbox"/> b. Other Markers <input type="checkbox"/> c. Boiler and/or Industrial Furnace</p> <p>Indicates Type of Combustion Device(s) <input type="checkbox"/> 1. Smelter/Detrital <input type="checkbox"/> 2. Small Quantity Exemption <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace <input type="checkbox"/> 5. Underground Injection Control</p>	
<p>B. Used Oil Recycling</p> <p>1. Used Oil Fuel Burner <input type="checkbox"/> a. Burner/Device Shipper OR to Off-Application <input type="checkbox"/> b. Burner who First Call OR Shows the Specific Combustion Device(s)</p> <p>2. Used Oil Burner - Indicate Combustion Device(s) <input type="checkbox"/> a. Utility Boiler <input type="checkbox"/> b. Industrial Boiler <input type="checkbox"/> c. Industrial Furnace <input type="checkbox"/> 1. Used Oil Transporter - Ind. of Activity(ies) <input type="checkbox"/> a. Transporter <input type="checkbox"/> b. Transporter Facility <input type="checkbox"/> 4. Used Oil Processor/Re-refiner of Activity(ies) <input type="checkbox"/> a. Processor <input type="checkbox"/> b. Re-refiner</p>			

IX. Description of Hazardous Waste (See additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Waste. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous waste; your inclusion number: See 40 CFR Parts 261.50 - 261.54)

Flammable
 Corrosive
 Reactive
 Toxic
 Other (Specify: _____)

B. Listed Hazardous Waste. (See 40 CFR 261.51 - 52; See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6	7	8	9	10	11	12
F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	F 0 0 6	F 0 0 7	F 0 0 8	F 0 0 9	F 0 0 10	F 0 0 11	F 0 0 12
U 0 0 2	U 0 0 3	U 0 0 1 9	U 0 0 3 1	U 0 0 4	U 0 0 5	U 0 0 6	U 0 0 7	U 0 0 8	U 0 0 9	U 0 0 10	U 0 0 11

C. Other Waste. (State or other system requiring a number to have an LD number; See instructions.)

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all statements were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted hereon is true and complete, and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: K. S. Donovan, Manager Name and Official Title (Type or print): _____ Date Signed: _____

XI. Comments

* Manager of Westinghouse Electric Corporation, Waste Isolation Division

* The WIPP is being permitted to dispose of Transuranic Mixed Waste

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

DL Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13				14				15				16				17				18			
U	0	7	7	U	0	7	8	U	0	7	9	U	0	8	0	U	1	1	7	U	1	2	1
19				20				21				22				23				24			
U	1	2	2	U	1	5	4	U	1	5	9	U	1	6	1	U	2	1	0	U	2	2	0
25				26				27				28				29				30			
U	2	2	6	U	2	2	8	U	2	3	9	D	0	0	8	D	0	0	9	D	0	1	0
31				32				33				34				35				36			
D	0	1	1	D	0	1	2	D	0	1	3	D	0	1	4	D	0	1	5	D	0	1	6
37				38				39				40				41				42			
D	0	1	7	D	0	1	8	D	0	1	9	D	0	2	0	D	0	2	1	D	0	2	2
43				44				45				46				47				48			
D	0	2	3	D	0	2	4	D	0	2	5	D	0	2	6	D	0	2	7	D	0	2	8
49				50				51				52				53				54			
D	0	2	9	D	0	3	0	D	0	3	1	D	0	3	2	D	0	3	3	D	0	3	4
55				56				57				58				59				60			
D	0	3	5	D	0	3	6	D	0	3	7	D	0	3	8	D	0	3	9	D	0	4	0
61				62				63				64				65				66			
D	0	4	1	D	0	4	2	D	0	4	3												
67				68				69				70				71				72			
73				74				75				76				77				78			
79				80				81				82				83				84			
85				86				87				88				89				90			
91				92				93				94				95				96			
97				98				99				100				101				102			
103				104				105				106				107				108			
109				110				111				112				113				114			
115				116				117				118				119				120			



ENVIRONMENTAL EVALUATION GROUP

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

7007 WYOMING BOULEVARD, N.E.
SUITE F-2
ALBUQUERQUE, NEW MEXICO 87109
(505) 828-1003
FAX (505) 828-1062

RECEIVED

June 12, 1996

JUL 16 1996

LEGISLATIVE FINANCE
COMMITTEE

Ms. Sally Rogers
Route 9
Box 72 F
Santa Fe, New Mexico 87505

Dear Sally:

Thank you for your call last week inquiring about the presence of lead in water samples obtained from the bottom of the exhaust shaft and waste handling shaft at the WIPP site.

While I had not seen the attached material, EEG did receive the enclosed viewgraphs on May 10 which were sent to our Carlsbad office.

In discussions with DOE this week, the source of the lead has not been clearly identified although some evidence suggests it was leached from grouting debris at the base of the shaft.

There is also no agreement on the source of the water. Concentrations of lead in the water from the base of the exhaust shaft have been reduced with the removal of the debris at the bottom of the shaft.

We have requested DOE to provide their reports on this subject and will keep you posted as information becomes available.

Thank you for bringing this to our attention.

Sincerely,

Robert H. Neill
Director

RHN:pf
Enclosure

AGENDA

- **Brine Management Background**
- **Facility**
- **Data History**
- **Questions**
- **Future Work**

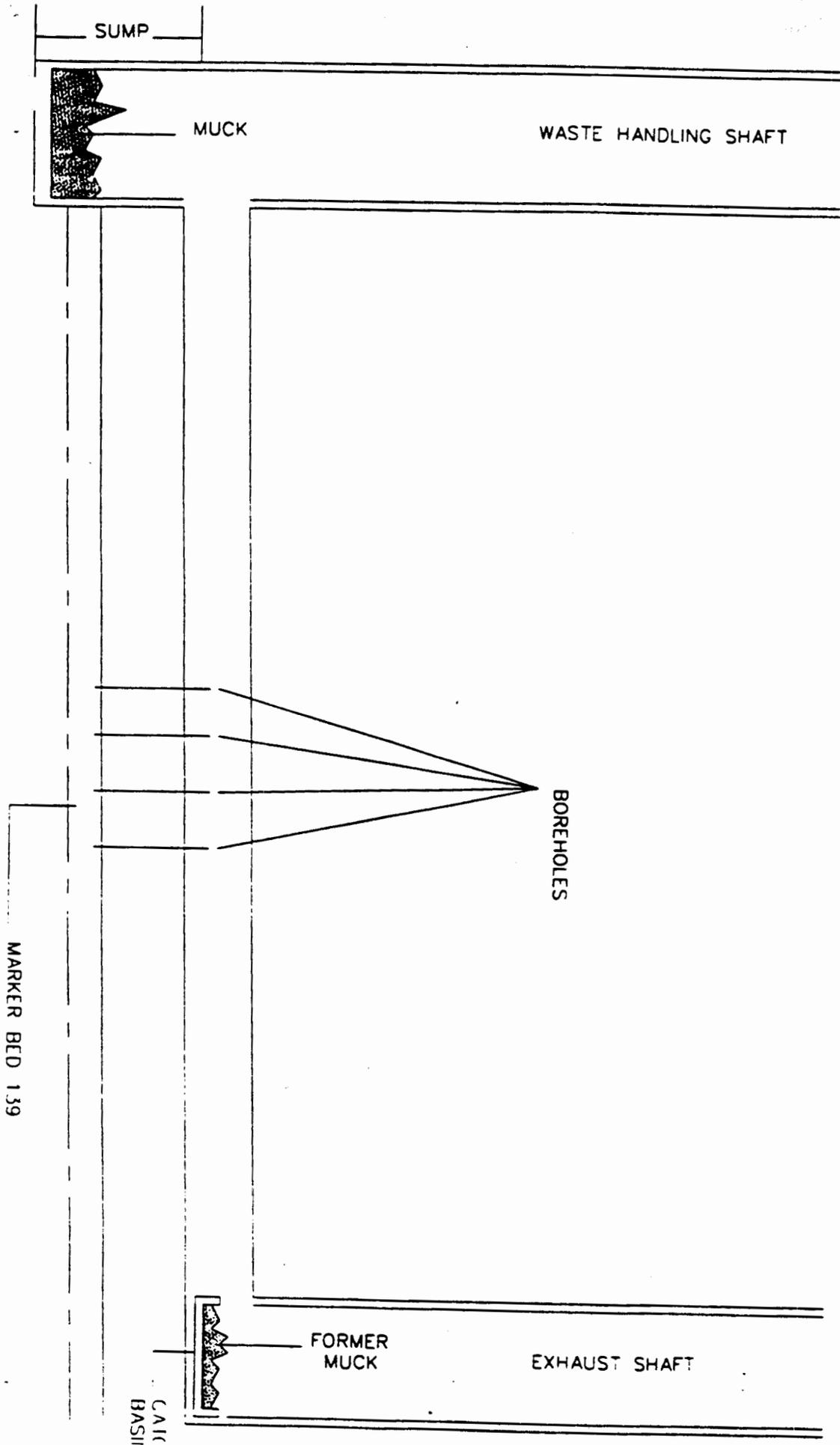
WESTINGHOUSE WASTE ISOLATION DIVISION (WID)

UNDERGROUND LEAD BEARING BRINE

Briefing to CAO

April 3, 1996

RECEIVED
MAY 10 1996
ENVIRONMENTAL EVALUATION GROUP



SUMP

MUCK

WASTE HANDLING SHAFT

BOREHOLES

MARKER BED 139

CAT
BASIN

FORMER
MUCK

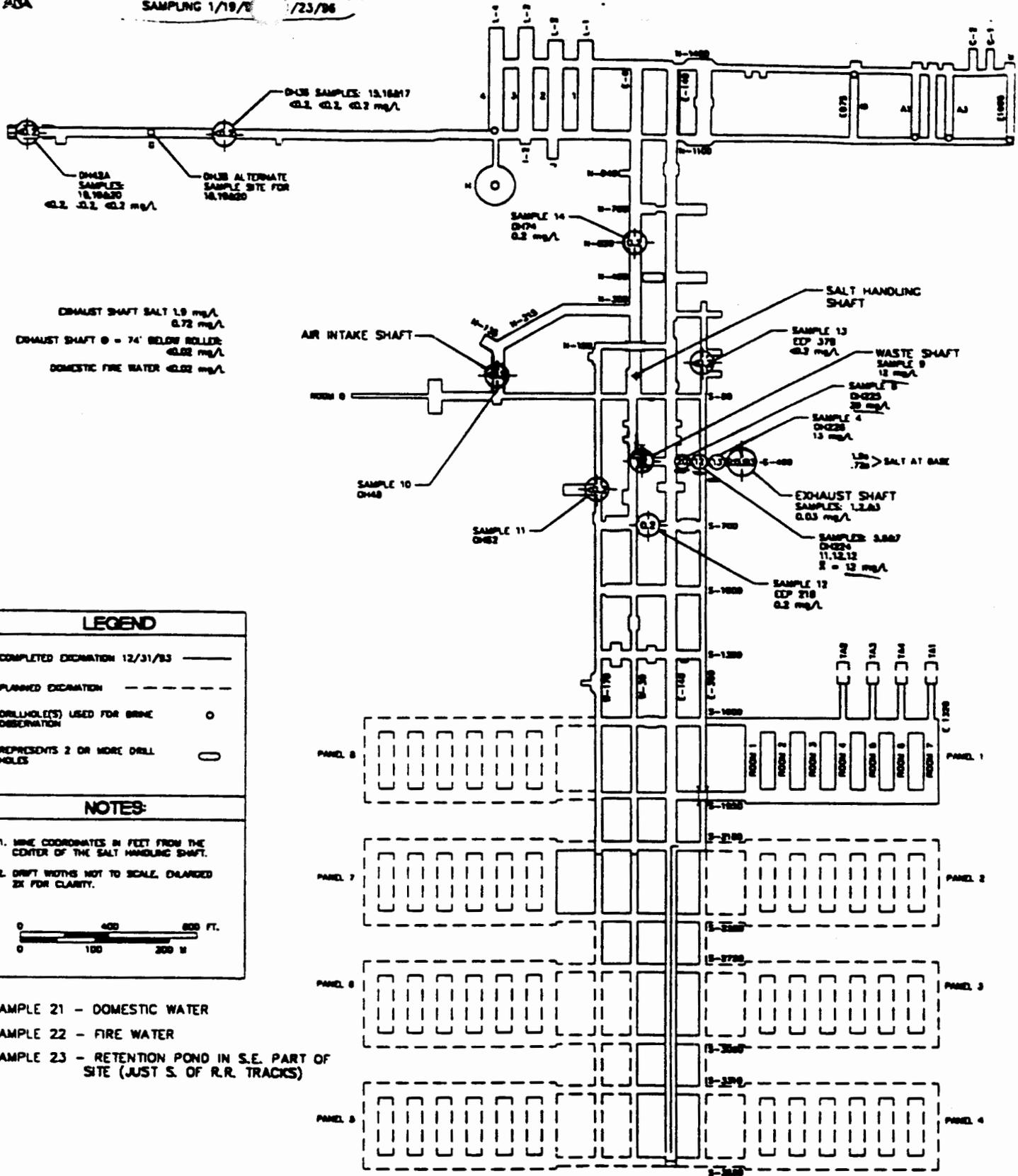
EXHAUST SHAFT

BRINE MANAGEMENT HISTORY

- **Focus on Air Intake Shaft Brines ~ 10,000 gallons/week; construction brine and shaft water**
- **1990 - 1991 Laguna Quatro**
- **1991 NMED granted emergency discharge permit**
- **1992 NMED granted discharge plan (DP-831) and extension on emergency permit**
- **1993 began lagoon disposal and reporting to the NMED**
- **Brine reduction after grouting completed in December 1993**



SUMMARY OF LEAD ANALYTICAL RESULTS
SAMPLING 1/19/86 1/23/86



**MAP OF WIPP UNDERGROUND SHOWING
 PROPOSED SAMPLING LOCATIONS**

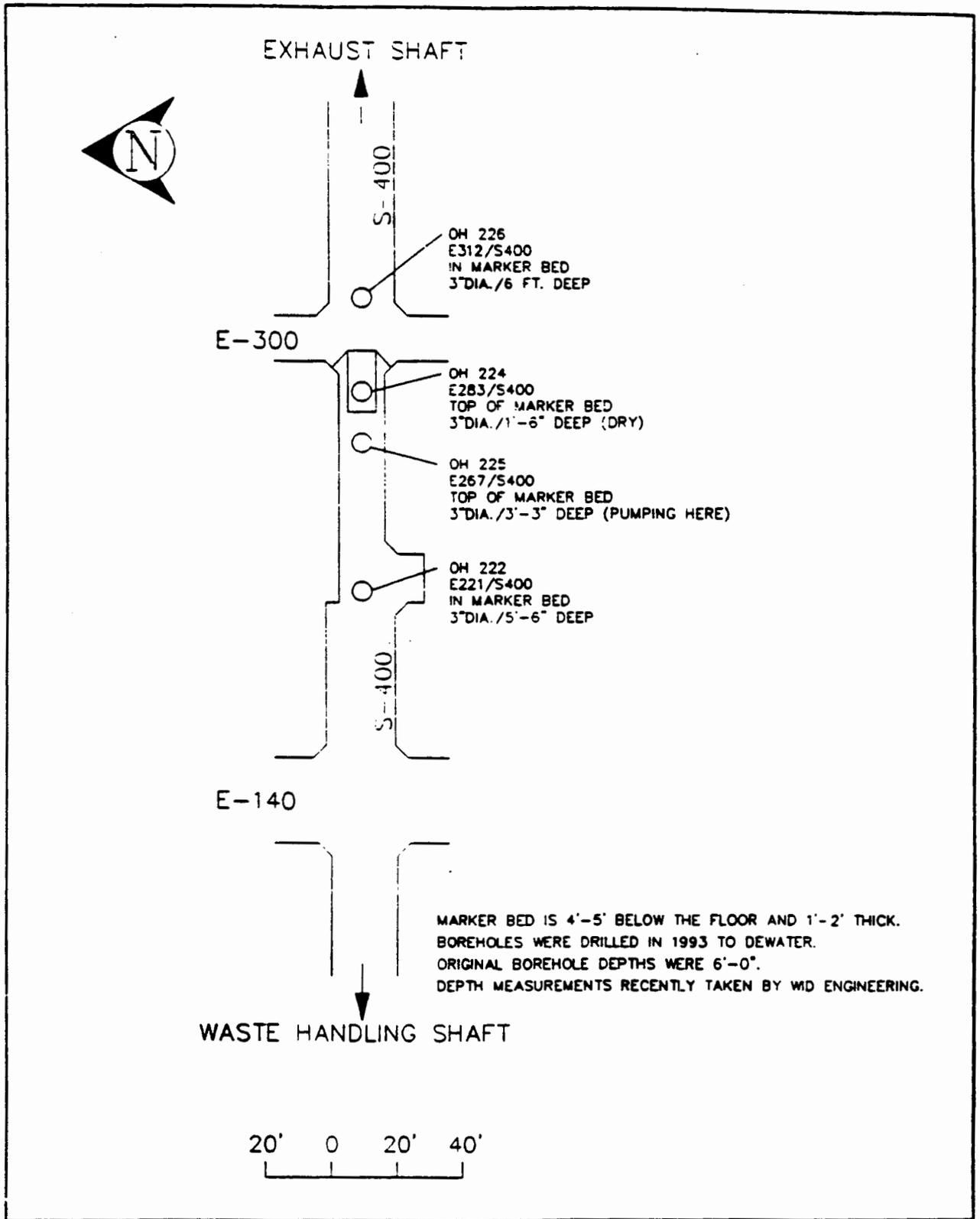
FIGURE 1

HISTORICAL DATA (mg/L)

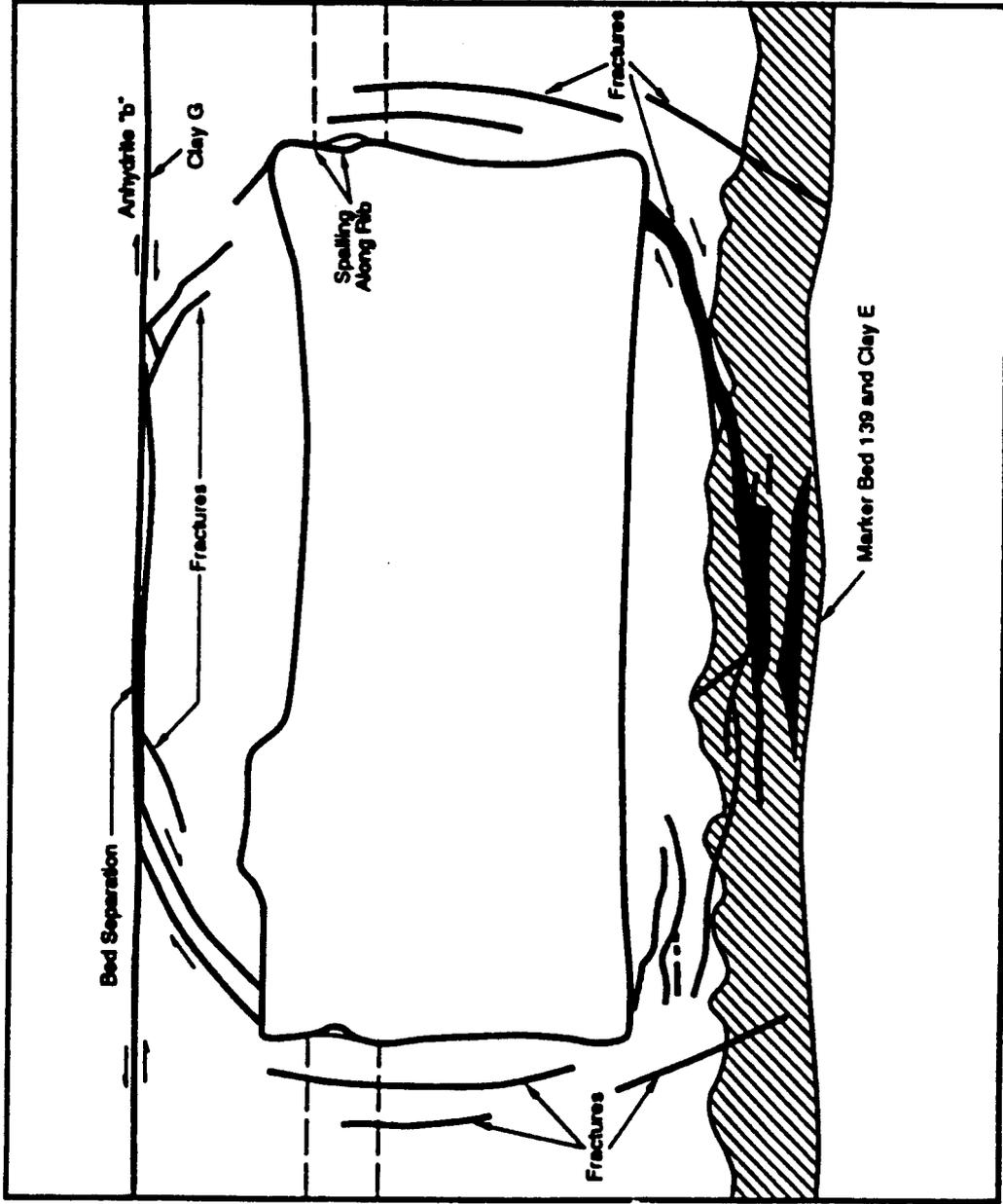
- **Toxicity Characteristic for Pb = 5**

- **WHS 1990** **BDL**
- **WHS 1992** **BDL**
- **WHS 1993** **1.1**
- **WHS 1995 May avg** **4.3**
- **WHS 1995 June avg** **6.7**
- **WHS 1995 July avg** **11.2**
- **WHS 1995 Aug avg** **10.6**

- **WHS 1995 - 1996** **avg 9.8**
- **BOREHOLES 1995 -1996** **avg 20.7**



S400 BOREHOLES



Summary of Underground Lead Bearing Water Issues

December 1995

- **Observation of Problem**
 - June 16, 1995 Observed lead above hazardous waste limit in Waste Handling Shaft Sump and S400/E300 borehole brine

- **Quantity of Hazardous Waste Water Removed from the Sump/Boreholes**
 - 6/95 1925 gallons 9/95 2475 gallons
 - 7/95 2310 gallons 10/95 550 gallons
 - 8/95 3630 gallons 11/95 330 gallons

- **Working Group to Resolve Underground Lead Bearing Water Issues**
 - Began meetings third quarter, 1995
 - Early Focus - Reduce Cost of Managing Hazardous Waste
 - Current Focus - Identification and possible elimination of source

- **Evaluated Management Alternatives for Lead Bearing Water**
 - Aquaset, Liming, new disposal contract placed with 30% cost savings

- **Sampled Exhaust Shaft Water at 80' below collar, 8/24/95**
 - No lead present
 - Rough flow estimate (0.2 gallons/minute) indicates potential source of water

- **Test Theories:**
 - 1) Lead bearing materials in the exhaust shaft
 - 2) Leaded water introduced during construction or operations (dust control)

- **Actions Completed**
 - Obtain/compile water generation data
 - Obtain meteorological (precipitation) data
 - Compare generation vs precipitation data
 - Compile analytical data and compare exhaust shaft data to potential water sources
 - Conduct domestic water line leak test
 - Install sample collector under exhaust shaft
 - Obtain sample from collector
 - Sample boreholes near AIS to determine if lead is present.
 - Obtain WL data of nearby Dewey Lake wells and compare with precipitation data
 - Contracted independent consultant familiar with brine evaluations at the WIPP

- **Work underway**
 - **Plot Humidity in exhaust shaft vs precipitation rate**
 - **Install collection basin under exhaust shaft**
 - **Provide status report to the CAO**
 - **Evaluate tracers to monitor potential water sources**
 - **Shut off of 1" water line to Station A humidifier to determine potential impact on water seepage in shaft**
 - **Evaluate near surface hydrology and continue water line testing**
 - **Contractor conducts independent data evaluation and provides guidance on a phased approach**

- **Preliminary Conclusions:**
 - **Water accumulation appears to be seasonal**
 - **Water accumulation does not pose operational hazards or restrictions**
 - **Appears to be correlation between precipitation and accumulation rate, probably due to high humidity inhibiting water removal from exhaust shaft**

EXHAUST SHAFT WATER
Comparison of Analytical Results with Other Water Sources

ANALYTICAL PARAMETER	EXHAUST SHAFT 8/24/95 - 101.3'			DEWEY LAKE WQSP-6A 7/13/95	SEWAGE POND 2 7/11/95	DOMESTIC WATER 4/2/92	WEST RETENTION BASIN RAIN WATER WST95-122 6/30/95
	TRIP 1 1645 WST95-227 230	TRIP 2 1709 WST95-229	TRIP 3 1731 WST95- 230				
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Mercury	<0.0002		0.001	<0.0002		<0.0005	
Arsenic	0.4		0.4	<0.0060		0.007	
Barium	0.21		0.2	<0.0200		0.07	0.079
Cadmium	0.005		<0.005	<0.0013		<0.001	
Chromium	<0.02		<0.02	<0.0025		<0.005	
Lead	<0.05		0.14	<0.0125		<0.002	
Selenium	<0.1		<0.1	<0.0060		<0.005	
Silver	<0.01		<0.01	<0.0028		<0.005	
BOD		<2mg/L					
Chloride (Cl-)		14000		1040			
TDS		25000		11000		290	
SO4--		1200		1905		43	<20
NO3-		4.1		7.6	<0.1		0.3

DRAFT

SAMPLING OF EXHAUST SHAFT WATER

August 24, 1995

A stream of water from a depth of 101.3' (from collar) was sampled on August 24, 1995 between 1645 - 1731. The sampling was a joint department effort involving Engineering, Operations and Environmental Safety and Health Departments.

Sampling Approach

Those involved in the sampling include Kathy Rhoades, Patty Loaghmiller, Teddy Garcia, Stacey Britain, Norm Siepel, Bobby Modrall, David Acebedo, Tommy Riche.

There were three separate sampling events (trips down the shaft).

Samples were analyzed for some total metals, Biological Oxygen Demand (BOD), some anions, and total dissolved solids (See Table 4 for summary). Metals samples were preserved with nitric acid. Clear plastic bottles were used. Samples were obtained using a bucket attached to a wire rope. The exhaust shaft inspection camera was used to pinpoint the flow.

Flow Estimate

The estimated flow rate was 0.2 gallons/minute. This corresponds to 12 gallons/hr, 288 gallons/day, or 8640 gallons/30 day period. Peak sump water/borehole monthly accumulation was 3630 gallons during the month of August 1995. Note that the underground exhaust fans cause significant evaporation/atomization of the water droplets. Therefore only a small amount of this stream reaches the WIPP underground and is available to leach out lead from the lead packing existing in the exhaust shaft wall. The underground ventilation flow is 250,000 cfm, from 0630 Mondays until 1530 on Friday afternoon. The weekend flow rate is 60,000 cfm from 1530 on Friday to 0630 Monday.

Analytical Results

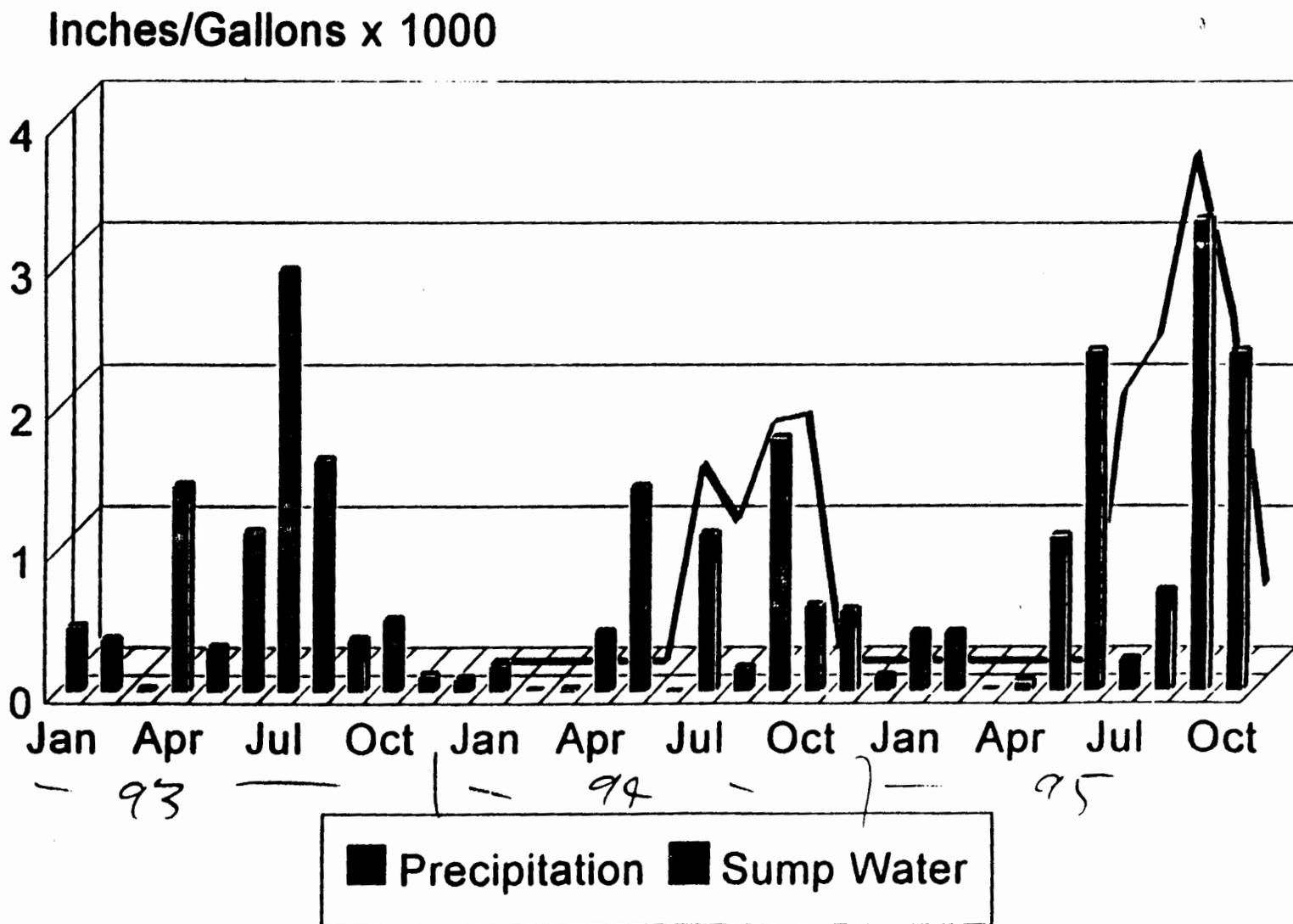
The analytical results were compared with available analytical results for some potential water sources. This comparison is presented in Table 4. No correlation with the available analytical results can be made. However, it is clear that only a minimal amount of lead (compared to slump/borehole water concentrations) was present in the sample.

Conclusion

No lead was present in the stream entering the exhaust shaft at 101.3'. No correlation can be made with the exhaust shaft analytical data and the water source data compared too on Table 4. Some water from the exhaust shaft stream at 101.3' may be available for leaching out lead from the exhaust shaft grout packing material.

WHS Sump Water

Generation and Precipitation Data



DRAFT

TABLE 3

MONTHLY PRECIPITATION AND SUMP WATER GENERATION DATA

MONTH/YEAR	PRECIPITATION (inches)	SUMP WATER (gallons)
1/93	0.47	NA
2/93	0.38	NA
3/93	0.02	NA
4/93	1.47	NA
5/93	0.32	NA
6/93	1.14	NA
7/93	2.99	NA
8/93	1.65	NA
9/93	0.38	NA
10/93	0.52	NA
11/93	0.12	NA
12/93	0.10	0
1/94	0.19	0
2/94	0.01	0
3/94	0.02	0
4/94	0.43	0
5/94	1.46	0
6/94 *	0	1400
7/94 *	1.13	1000
8/94 *	0.17	1700
9/94 *	1.8	1750
10/94	0.62	0
11/94	0.59	0
12/94	0.11	0
1/95	0.43	0
2/95	0.43	0
3/95	0.01	0
4/95	0.07	0
5/95	1.11	0
6/95 *	2.42	1925
7/95 *	0.23	2310
8/95 *	0.72	3630
9/95 *	3.35	2475
10/95 *	2.42	550

* = peak sump water generation

NA = not data available

DRAFT

Average concentration, 1995 10.5 ± 2.1
TCLP = Toxicity Characteristic Leachate Procedure

DRAFT

TABLE 2

S400/E300 BOREHOLE WATER

Summary of Lead Concentration

SAMPLE ID	DATE	METHOD	Pb mg/L	SAMPLE LOCATION
WST-95-118	06/28/95	TCLP	11	S400/E300 Borehole water Hole nearest exhaust shaft
WST-95-119	06/28/95	TCLP	7.1	S400/E300 Borehole water Hole nearest WHS
WST-95-241	08/30/95	Total	30	S400/E130 Borehole water Hole nearest WHS
WST-95-272	10/03/95	TCLP	22	S400/E130 Borehole water Hole nearest WHS

TCLP = Toxicity Characteristic Leachate Procedure



MEETING MINUTES

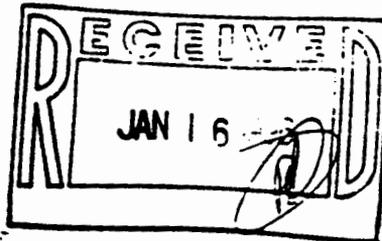
Attendees				Distribution		
Name	Mail Stop					
R. R. Chavez	MS-170	S. C. Kouba	MS-170	J. K. Casper	MS-090	
D. A. Hofer	MS-025	A. E. Roland	MS-005	K. M. Chmura	MS-005	
M. M. Kirk	MS-035	D. L. Schain	MS-185	N. T. Rampe	MS-005	
				S. C. Sethi	MS-005	
				Prepared By R. Chavez and M. M. Kirk	Date 11/20/95	
Subject or Purpose of Meeting REVIEW DATA PERTAINING TO SOURCE OF LEAD BEARING WATER				Location: Trl 950	Date 11/10/95	
	<p>The Working Committee to Resolve Underground Water issues met at 12:30 on November 10, 1995, in the Trailer 950 Conference Room. The group reviewed data pertaining to Waste Handling Shaft sump water (see attached) and discussion ensued.</p>					
1.	<p>Mr. Bob Roland pointed out that the chart comparing precipitation data to water generation rates in the sump and nearby boreholes may be misleading. Although the data appears to correlate precipitation with sump water generation rates, other factors should be considered before drawing conclusions. Mr. Roland pointed out that the generally dry air moving through the Exhaust Shaft serves as a mechanism to remove water that may be present in the Exhaust Shaft. During periods of high humidity or rainfall, the removal mechanism is substantially inhibited. Furthermore, the water generation data is based on when water is removed from the Waste Handling Shaft and boreholes and may not accurately reflect generation rate.</p>					
2.	<p>Mr. Roland indicated that domestic water line leak testing is important in determining the source of water entering the Exhaust Shaft. Mr. Roland informed the group that the catch basin being installed to capture Exhaust Shaft water will not be available until January, 1996. A sample of this water will confirm whether exhaust shaft seepage is leaching lead from oxidized lead wool or galvanized materials such as chain link-mesh that is present in the Exhaust Shaft.</p>					
3.	<p>Mr. Dennis Hofer reported that Texas A&M University (TAMU) is studying water droplet formation in the Exhaust Shaft. He reported that TAMU will be on site in November to continue the study and will be available to discuss data and findings on the subject. The studies indicate that condensation from relative humidity is an insignificant contributor to the droplet formation in the Exhaust Shaft.</p>					
4.	<p>Mr. R. Chavez pointed out that Messrs. E. K. Hunter and B. Kaiser of the CAO have indicated that work to resolve the Waste Handling Shaft Sump water issues is a CAO priority. He also pointed out that Mr. K. McKaney of the Site NMED has expressed interests in the work of the group. CAO and Site NMED will be placed on the distribution list for meeting minutes and meeting notices.</p>					
5.	<p>The following activities were planned by the group:</p> <ul style="list-style-type: none"> ■ Boreholes in the S-90 drift, near the Air Intake Shaft, will be sampled to determine if this water could be a source of lead. ■ Obtain borehole identification and information for the boreholes in the S-90 drift and boreholes in the S-400/E-140 drifts. ■ Barnwell Well water level data will be obtained/compared to precipitation data to determine if ground water recharge in the vicinity correlates to precipitation data. ■ Status on domestic water line leak tests. 					
				Rick Chavez	11/22/95	
				Bob Roland	11/21/95	
				Steve Kouba	12/15/95	
				Bill Barnhart	Next Meeting	
6.	<p>Data compiled by the group will be maintained by EC&S.</p>				Rick Chavez	Ongoing



MEETING MINUTES

Attendees		Distribution	
Name	Mail Stop		
Bill Barnhart	MS-025	Beth Bennington	MS-564
Rick Chavez	MS-170	Frank Briceno	MS-570
Jackie Davis	MS-025	Keith McKamey	MS-M/R
Dwight Deal	MS-005	Wayne Walker	MS-570
Lincoln Djang	MS-170		
Steve Kouba	MS-170		
Norbert Rempe	MS-005		
Bob Roland	MS-005		
Stan Patchet	MS-010		
Tom Ward	MS-035		
Roy White	MS-035		
		Chuck Conway	MS-030
		Kevin Donovan	MS-150
		John Garcia	MS-005
		Teddy Garcia	MS-185
		Prepared By Misty Kirk and Rick Chavez	Date 1/8/96
Subject or Purpose of Meeting: UPDATE OF LEAD BEARING WATER ISSUES		Safety Building Conference Room	Date 12/19/95

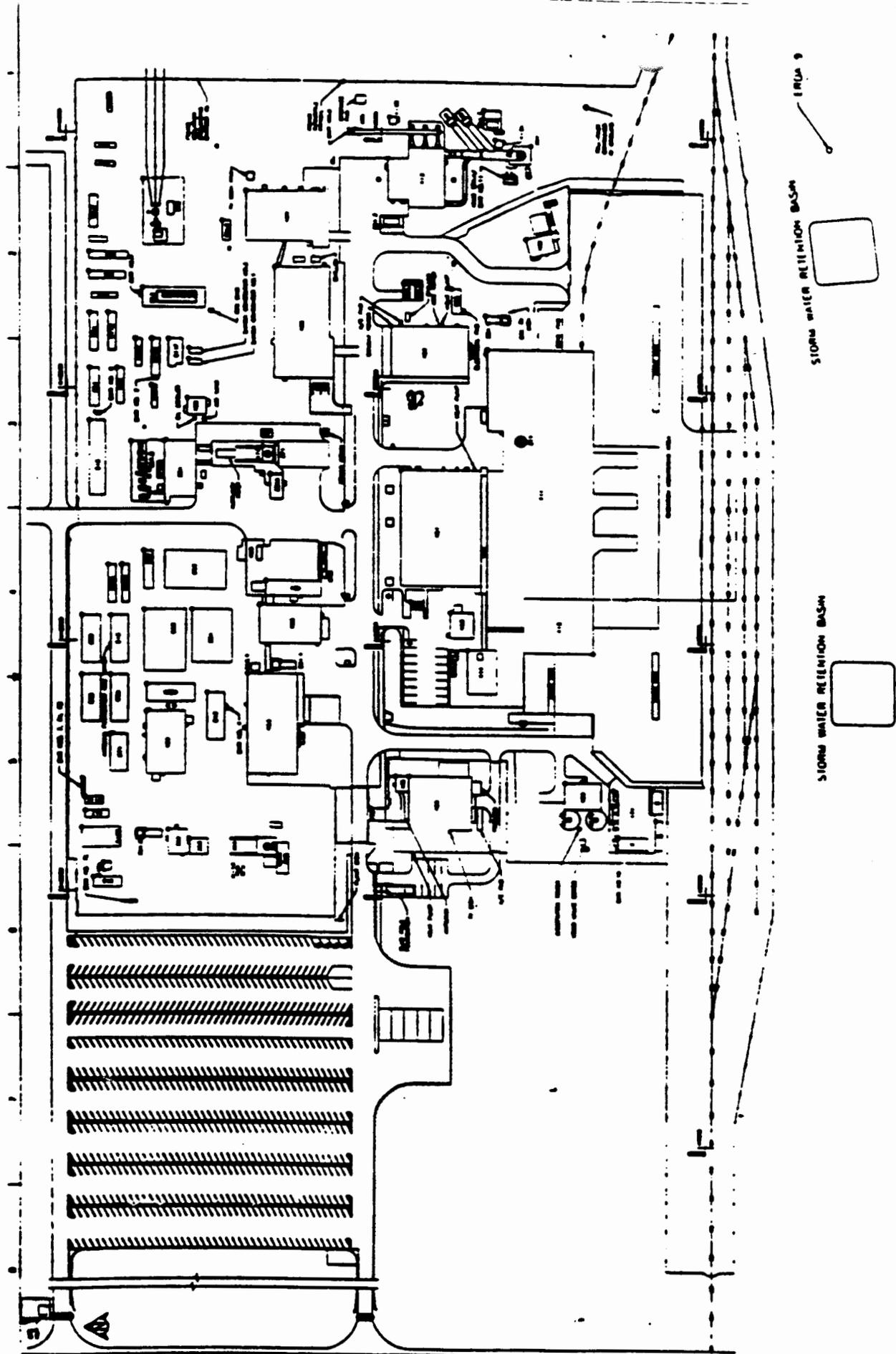
Item Number	Discussions or Resolutions	Action By	Date
1.	<p>The Working Committee to Resolve Underground Lead Bearing Water Issues met at 10:00 a.m. on December 19, 1995, in the Safety Building conference Room. The purpose of the meeting was to provide an update of the underground lead bearing water issues and related work activities. Attached is a summary of the presentation.</p>		



Summary of Engineering Activities Regarding the ES Water In-Flow

- (1) Mechanical & Civil Engineering submitted an Action Request to shut off and vent the 1" water line that goes to Station A. This is planned after the samples are taken on January 22.
- (2) Mechanical & Civil Engineering submitted an Action Request to place a pressure instrument in the Fire Water system to determine the frequency of jockey pump operation. Using the frequency of pump operation and the volume of water needed to create the change in the system pressure each time the pump operates, a determination can be made whether there is a leak in the yard utilities.
- (3) Mechanical & Civil Engineering will contact an outside "expert" that has the expertise to "listen" for leaks in the yard piping. M&CE will subcontract the expert to perform tests on the yard piping. Contact with a subcontractor will occur during the week of January 15-19, 1996, with a Purchase Requisition to follow.

January 15, 1996
Gary R. Morrison, Manager
Mechanical & Civil Engineering

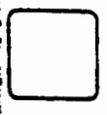


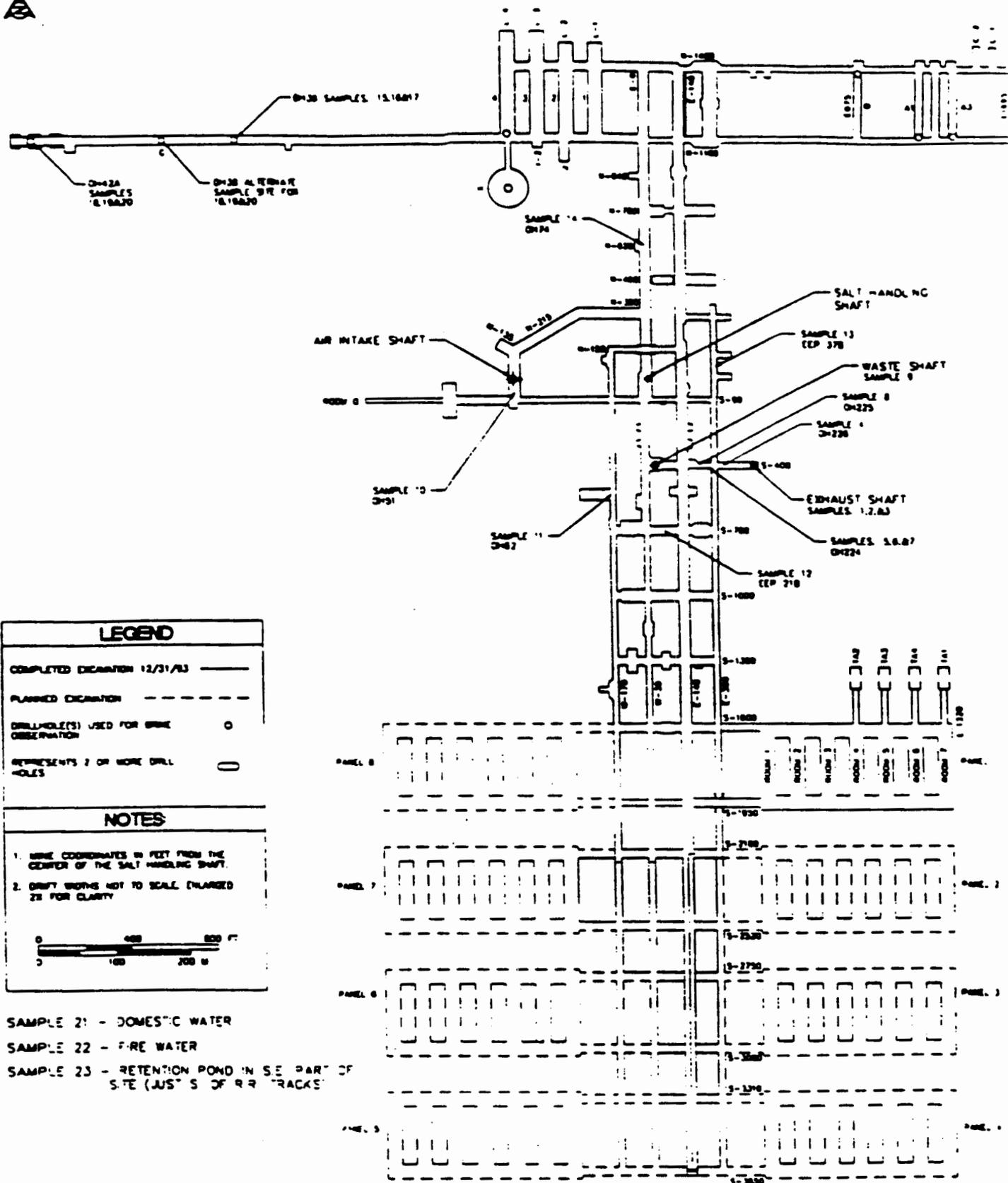
IRIS 9

STORM WATER RETENTION BASIN



STORM WATER RETENTION BASIN





LEGEND	
COMPLETED EXCAVATION 12/31/83	—————
PLANNED EXCAVATION	- - - - -
DRILLHOLE(S) USED FOR BRINE OBSERVATION	○
REPRESENTS 2 OR MORE DRILL HOLES	◌

NOTES	
1.	MINE COORDINATES IN FEET FROM THE CENTER OF THE SALT HANDLING SHAFT.
2.	DRIFT SHOWS NOT TO SCALE ENLARGED 2X FOR CLARITY.

0 100 200 400 600 FT.

- SAMPLE 21 - DOMESTIC WATER
- SAMPLE 22 - FIRE WATER
- SAMPLE 23 - RETENTION POND IN SE PART OF SITE (JUST S OF RR TRACKS)

MAP OF WPP UNDERGROUND SHOWING PROPOSED SAMPLING LOCATIONS

Table 2

ANALYTICAL PARAMETER	SW-846 OR EQUIVALENT METHOD	PRESERVATIVE
Specific Gravity	ASTM - D1429-76 Hydrometer	NA
Total dissolved solids (TDS)	160.1	NA
pH	9040B Electrometric	NA
Cl ⁻ (chloride)	325.2 Colorometric	NA
SO ₄ ²⁻ (sulfate)	375.4 Turbidimetric	NA
Br ⁻ (bromide)	320.1 Titrimetric	NA
NO ₂ , NO ₃	355.2 Colorimetric	H ₂ SO ₄ pH 2
NH ₄ ⁺ (ammonium)	350.3 Distillation/Electrode	H ₂ SO ₄ pH 2
Potassium	6010 ICP TCLP	NA
Calcium	6010 ICP TCLP	NA
Sodium	6010 ICP TCLP	NA
Magnesium	6010 ICP TCLP	NA
Boron	6010 ICP TCLP	NA
Silver	6010 ICP TCLP	NA
Barium	6010 ICP TCLP	NA
Cadmium	6010 ICP TCLP	NA
Chromium	6010 ICP TCLP	NA
Mercury	7470 Cold Vapor	NA
Lead	6010 7420 ICP AA-Graphite Furnace TCLP	NA
Arsenic	6010 7060A ICP AA-Graphite Furnace TCLP	NA
Selenium	6010 ICP TCLP	NA
Coliform	9132	Sodium Thiosulfate

ICP = Inductively coupled plasma emission spectroscopy

AA = Atomic absorption spectroscopy

TCLP = Toxicity Characteristic Leachate Procedure

SW846 = EPA Test Methods for Evaluating Solid Waste

Table 1

ID	LOCATION
*1	Exhaust Shaft: inflow approximately 80 ft below collar
2	Exhaust Shaft: Center of drip at station (bottom)
*3	Exhaust Shaft: Below stalactite on air pipe in station (bottom)
4	E300 at S400: downhole just east of airlock door OH226
*5,6,7	S400 just west of airlock door (this is the location pumped by U. G. ops) OH224TRIPLICATE SAMPLE
8	S400 just west of above location OH225
9	Waste Shaft Sump
10	AIS Station area. W620 & S90 - OH51
11	S400 & W170. in front of door to underground core storage area - OH62
12	S400 ^{at E370} between air doors between W30 and E140. center hole in EEP21 array - EEP21B
13	E300 at approximately N100 in new shop area. center hole of EEP37 - EEP37B OH74
14	E0 & N620. center of intersection
15,16,17	Room G. BSEP hole DH36 TRIPLICATE SAMPLE
18,19,20	Room G. BSEP hole DH42A (if there is enough fluid for triplicate sample. if not, sample DH38 instead) TRIPLICATE SAMPLE
21	Facility (domestic) water from faucet or hose bib on site
22	Facility fire water
23	S. E. facility catch basin
24,25	Equipment Rinsates
26	Rinsate Blank (De-Ionized Water used for rinsing equipment)

* = locations where additional coliform sample will be collected
 BSEP = Brine Sampling and Evaluation Program

UNDERGROUND LEAD BEARING WATER WORKING GROUP

SAMPLING PLAN I

January 1996

Purpose

The purpose of this sampling plan is to identify the sample locations and analytical parameters required to delineate the extent of the lead contaminated brine in the underground and to identify the source of the lead bearing water. The specific locations identified are listed in Table 1 and shown in Figures 1 and 2. Borehole and Waste Handling Shaft brine analytical results will be compared to known compositions of Salado Brine, Culebra water, and other potential water sources. The potential sources selected for sampling and analysis include: exhaust shaft water; domestic water; fire water and surface water in site storm water run-off basins.

Methods

Samples will be obtained in accordance with WP 02-EM2, Rev. 0, WIPP Site Effluent and Hazardous Materials Sampling Plan. For consistency samples from all locations will be obtained within a two day time period. Borehole samples will be obtained using either plastic bailers or a portable pump. Plastic sampling equipment and containers will be used. The analytical parameters selected and the methods to be used are shown in Table 2. Samples from each location will be analyzed for all parameters. However, coliform will only be determined at the locations specified with an astrisk (*).

UNDERGROUND LEAD BEARING WATER WORKING GROUP

MEETING AGENDA

January 17, 1996

1. **Source Identification**
 - Results of Exhaust Shaft flywater sample: R. Chavez
 - Sampling Plan - Implementation planning: R. Chavez
 - Pipe line testing: B. Barnhart G. Morrison
2. **Mitigation Activities**
 - Catch Basin: B. Roland
3. **Questions/Comments**

MEETING MINUTES

Attendees			Distribution	
Name	Mail Stop	Organization		
BILL BARNHART	MS-025	ENGINEERING		
RICK CHAVEZ	MS-170	ENVIRONMENTAL SAFETY & HEALTH		
STEVE KOUBA	MS-170	ENVIRONMENTAL SAFETY & HEALTH		
PATTY LOUGHMILLER	MS-170	ENVIRONMENTAL SAFETY & HEALTH		
BOB ROLAND	MS-005	MINE ENGINEERING		
DOUG SCHOEN	MS-185	UNDERGROUND OPERATIONS		
WAYNE WALKER	MS-570	CAO-WST		
TOM WARD	MS-270	WASTE HANDLING OPERATIONS		
ROY WHITE	MS-270	WASTE HANDLING OPERATIONS		
CC: BETH BENNINGTON MS-570 CAO-WST CHUCK CONWAY MS-030 OPERATIONS CHRIS CHMURA MS-005 ENGINEERING JOHN GARCIA MS-170 ENVIRONMENTAL SAFETY & HEALTH TEDDY GARCIA MS-185 MINE OPERATIONS RICH LEONARD MS-170 ENVIRONMENTAL SAFETY & HEALTH PAT McCausland MS-MR NMED KEITH McKamey MS-MR NMED STAN PATCHET MS-005 ENGINEERING NORBERT REMPE MS-005 ENGINEERING			Prepared By Masti Kirk	Date 01/18/96
Subject or Purpose of Meeting			Location Safety Building Conference Room	Date 1/17/96

Item Number	Discussions or Resolutions	Action By	Date
	<p>The Working Committee to Resolve Underground Water issues met on November 10, 1995 ^{November 17, 1995} in the Safety Building Conference Room. The purpose of the meeting was to present a sampling plan to delineate the extent of the lead contaminated brine in the underground and to identify the source of lead bearing water. The status of other related activities were discussed.</p>		
1.	Rick Chavez presented the attached sampling plan and took the action to present the plan to the Site NMED since they were not in attendance. This action was completed on January 19, 1996.		
2.	It was decided that the results and conclusions of the sampling conducted per above item 1 be summarized into a brief report. This report will be discussed at a working group meeting and attached to the meeting minutes.		
3.	Bill Barnhart presented the attached summary of activities regarding the exhaust shaft water in-flow.		
4.	Bob Roland indicated that the water catch basin is under construction and is targeted for installation this spring.		
-	The next working group meeting will be during the week of February 20, 1996.		



MEETING MINUTES

Attendees			Distribution	
Name	Mail Box	Department	Attendees Plus	
W. E. BARNHART	MS-025	WID	C. E. CONWAY	MS-030
R. R. CHAVEZ	MS-170	WID	K. S. DONOVAN	MS-150
S. C. KOUBA	MS-170	WID	J. J. GARCIA	MS-026
M. E. BENNINGTON	MS-270	CAO	T. T. GARCIA	MS-185
R. J. LEONARD	MS-170	WID	P. McCASLAND	MS-MR
P. G. LOUGHMILLER	MS-170	WID	S. C. SETHI	MS-005
K. E. McKAMEY	MS-MR	NMED		
N. T. REMPE	MS-005	WID		
A. E. ROLAND	MS-005	WID		
D. L. SCHDEN	MS-185	WID		
W. A. WALKER	MS-570	CAO		
T. R. WARD	MS-270	WID		
R. F. WHITE	MS-270	WID		

Subject or Purpose of Meeting	LEAD WATER WORKING GROUP	Location	SAFETY BUILDING CONFERENCE RM	Date	
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Item Number	Discussions or Resolutions	Action By	Date
	<p>The Working Committee to Resolve Underground Water Issues met on February 20, 1996, in the Safety Building Conference Room. The purpose of the meeting was to review data from samples taken January 19 - 23, 1996. The status of work activities underway were discussed. The following are highlights from the meeting.</p> <ol style="list-style-type: none"> R. R. Chavez presented the attached summary of preliminary lead data from the samples taken January 19 - 23, 1996. Preliminary indications are that the primary extent of lead contamination is between the Exhaust Shaft and the Waste Shaft. The Committee decided to conduct periodic camera inspections of the Exhaust Shaft at approximately 74' below the collar. The inspections will be conducted to observe impacts on the Exhaust Shaft seepage from removing a nearby water line from service. The water line supplying the humidifier at Station A and Building 413 was removed from service on February 2, 1996. A. E. Roland reported that the catchment basin under construction is scheduled for emplacement under the Exhaust Shaft in March 1996. W. E. Barnhart reported that the New Mexico Rural Water association will be on site with their sonic water detector to look for potential domestic/fire water line leaks. 		

**SUMMARY OF LEAD CONCENTRATION
WASTE SHAFT SUMP SOLIDS**

SAMPLE NUMBER	DATE	METHOD	Pb mg/L	SAMPLE LOCATION
WST-96-059	02/07/96	TCLP	0.1	Waste Handling Shaft Sump Salt - Composite of pile in S550 Alcove
WST-96-073	02/21/96	TCLP	0.1	Waste Handling Shaft Sump Salt - N Salt Pile (N Side)
WST-96-076	02/21/96	TCLP	0.1	Waste Handling Shaft Sump Salt - N Salt Pile (S Side)
WST-96-078	02/22/96	TCLP	0.1	Waste Handling Shaft Sump Salt - Sump Sludge
WST-96-059	02/07/96	TCLP	0.1	Waste Handling Shaft Sump Salt - Sump Sludge
WST-96-073	02/21/96	TCLP	0.12	Waste Handling Shaft Sump Salt Muck
WST-96-076	02/21/96	TCLP	0.1	Waste Handling Shaft Sump Salt Muck
WST-96-078	02/22/96	TCLP	0.1	Waste Handling Shaft Sump Muck/Insitu

**SUMMARY OF LEAD CONCENTRATION
EXHAUST SHAFT SUMP SOLIDS**

SAMPLE NUMBER	DATE	METHOD	Pb mg/L	SAMPLE LOCATION
WST-96-007	01/19/96	TCLP	1.9	Exhaust Shaft Muck In Situ
WST-96-008	01/19/96	TCLP	0.72	Exhaust Shaft Muck In Situ
WST-96-091	03/01/96	TCLP	0.33	Exhaust Shaft Muck - removed
WST-96-092	03/01/96	TCLP	0.1	Exhaust Shaft Muck - removed
WST-96-093	03/01/96	TCLP	0.1	Exhaust Shaft Muck - removed
WST-96-094	03/01/96	TCLP	0.2	Exhaust Shaft Muck - removed
WST-96-097	03/01/96	TCLP	0.1	Exhaust Shaft Muck - removed

DRAFT

**SUMMARY OF LEAD CONCENTRATION
WASTE HANDLING SHAFT SUMP WATER**

SAMPLE NUMBER	DATE	METHOD	Pb mg/L	SAMPLE LOCATION
WIPP-243	01/16/90	TCLP	<0.05	Waste Handling Shaft Sump Brine - out of sump
WIPP-478	03/17/92	TCLP	<0.05	Waste Handling Shaft Sump Brine - out of sump
HEWHS199308162.4	08/16/93	TOTAL	1.1	Waste Handling Shaft Sump Brine - out of sump
WST-95-083	05/16/95	TCLP	3.9	Sample from portable transfer container
WST-95-084	05/16/95	TCLP	4.7	Sample from portable transfer container
WST-95-103	06/16/95	TCLP	8.1	Waste Handling Shaft Sump Brine - out of sump
WST-95-104	06/16/95	TCLP	6.1	Waste Handling Shaft Sump Brine - out of sump
WST-95-116	06/28/95	TCLP	6.7	Brine sample from portable transfer container
WST-95-117	06/28/95	TCLP	7.3	Duplicate of above
WST-95-149	07/20/95	TCLP	12	Random sample of 55 gallon drums containing sump water
WST-95-150	07/20/95	TCLP	10	Random sample of 55 gallon drums containing sump water
WST-95-151	07/20/95	TCLP	11	Random sample of 55 gallon drums containing sump water
WST-95-152	07/20/95	TCLP	11	Random sample of 55 gallon drums containing sump water
WST-95-156	07/21/95	TCLP	11	Sample from portable transfer container
WST-95-157	07/21/95	TCLP	11	Sample from portable transfer container
WST-95-161	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-162	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-163	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-164	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-165	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-166	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-167	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-168	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-169	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-170	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-171	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-172	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-173	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-174	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-175	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-176	07/26/95	TCLP	12	Sample from 55 gallon drum containing sump water
WST-95-177	07/26/95	TCLP	11	Sample from 55 gallon drum containing sump water
WST-95-178	07/26/95	TCLP	11	Sample from 55 gallon drum containing sump water
WST-95-179	07/26/95	TCLP	10	Sample from 55 gallon drum containing sump water
WST-95-180	07/26/95	TCLP	11	Sample from 55 gallon drum containing sump water
WST-95-181	07/26/95	TCLP	11	Sample from 55 gallon drum containing sump water
WST-95-182	07/26/95	TCLP	10	Sample from 55 gallon drum containing sump water
WST-95-183	07/26/95	TCLP	11	Sample from 55 gallon drum containing sump water

DRAFT

Attachments

- **Data Summary**
- **Lead Brine Working Group Meeting Minutes**
- **September 1, 1995 Meeting Notes with NMED**
- **Section from 1995 Hazardous Waste Report**
- **Notification of Hazardous Waste Activity**

**COST OF LEAD CONTAMINATED BRINE WATER DISPOSAL
24 JUN 1995 TO 27 SEPT 1995**

166 X 55 GAL DRUMS = 9,130 GALLONS

COST = \$66,660 VIA CHEMICAL WASTE MANAGEMENT INC.

AVERAGE MONTHLY COST = \$ 22,220

ORIGINAL GENERATION PROJECTIONS = 2,000 GAL/MO.

PROJECTIONS

A significant reduction in the volume of brine generated is predicted by mine engineering for sometime in the future. A 50% reduction of the current rate of generation would result in the following cost of disposal:

Generation rate = 1,500 gal/mo x 12 = 18,000 gal/yr.

327 drums/yr x \$225 = \$73,575/yr or \$6,131/mo

327 drums x \$40 = \$13,080/yr or \$1090/mo

A new contract has been placed with Safety Klean Inc. to dispose of the lead contaminated brine at a cost of \$224/drum. A rate of 2000 gal/mo. (original projection) would translate to \$99,900 annually.

As of October 11, 1995, 605 gallons of brine are currently in storage indicating a marked reduction in the generation rate. Even with the current reduction we are still generating an average of 43 gallons/day or 1290 gallons/mo which translates to \$5,376/mo. or \$64,512/yr.. It appears the cyclic generation rate predicted by engineering and mine operations is occurring.

**ROY F. WHITE
HAZARDOUS WASTE OPERATIONS**

MEETING MINUTES

Attendees			Distribution	
Name	Mail Box	Department		
Bill Barnhart	MS-025	Engineering	Chuck Conway	MS-030
Rick Chavez	MS-170	Environmental Safety & Health	Kevin Donovan	MS-150
Chris Chmura	MS-005	Engineering	John J. Garcia	MS-026
Teddy Garcia	MS-185	Hoisting Operation	Dennis Hofer	MS-025
Steve Kouba	MS-170	Environmental Compliance & Safety		
Norbert Remppe	MS-005	Engineering		
Doug Schoen	MS-228	Underground Operations		
Tom Ward	MS-035	Hazardous Waste Operations		
Roy White	MS-035	Hazardous Waste Operations		
			Prepared By Misty Kirk	Date 10/15/95
Subject or Purpose of Meeting Underground Water Issues			SMALL CONFERENCE RM	Date 10/12/95

Item Number	Description or Resolution	Action By	Date
	<p>The Working Committee to Resolve Underground Water issues met on October 12, 1995 at 10:00 a.m. in the Support Building Small Conference Room. The purpose was to develop a action plan to resolve the issues related to water accumulation in the Waste Handling Shaft sump.</p> <p>STATUS OF ACTIVITIES UNDERWAY:</p>		
1.	<p>Messrs Teddy Garcia, and Roy White, presented information concerning the removal rate of lead contaminated water (brine) from the Waste Handling Shaft and nearby boreholes. Teddy Indicated that a significant decrease in the removal rate has occurred. The largest amount of water removed in a one week period this summer was 37 drums (2,035 gal). Currently the removal rate is approximately 4 drums per week (220 gal). Roy presented disposal costs incurred for the lead contaminated water and cost projections for the year (see attached).</p>		
2.	<p>Bill Barnhart, discussed the progress of a work package in place to check for leaks in water lines near the exhaust shaft. Preliminary studies are underway.</p>		
3.	<p>Norbert Remppe, presented the analytical results for the sampling conducted at approximately 75' down the exhaust shaft. It was pointed out that there was minimal lead (0.14 mg/L) observed in the sample. Norbert also pointed out that the hydrology/geological formation in the area rules out the possibility of the "Culebra" being the source of the water inflow at 75' in the exhaust shaft. Norbert also reported that a catch basin to be placed under the exhaust shaft is under development and is estimated to be installed prior to 12/31/95.</p>		
4.	<p>After discussion it was agreed that the best approach to resolve the water accumulation issues is to identify and eliminate the source of the inflow. The first step in identifying the source is to obtain historical data and attempt to correlate this information to potential sources. An action plan was developed and agreed upon.</p>		
5.	<p>It was also agreed that a cost benefit analysis would be required before any actions are recommended by the group.</p>		
6.	<p>ACTION PLAN TO IDENTIFY SOURCE OF ACCUMULATION</p> <ul style="list-style-type: none"> ● Compile Historical Data and Evaluate <ul style="list-style-type: none"> Determine Monthly Brine Generation Rate (Waste Handling Shaft and nearby Boreholes) <ul style="list-style-type: none"> • Obtain sewage lagon discharge information • Obtain Request For Disposal Data • Obtain removal rates through process knowledge • Obtain meteorological (precipitation) data • Compile available analytical data and compare exhaust shaft data to potential water sources • Estimate leak rate for water lines Install water collection basin under the exhaust shaft <ul style="list-style-type: none"> • Install basin - WID Engineering 12/31/95 • sample accumulation to determine if seepage is source 1/15/96 	<p>Rick Chavez Roy White Teddy Garcia Rick Chavez</p> <p>Bill Barnhart</p>	<p>10/19/95 10/19/95 10/19/95 10/19/95</p> <p>10/19/95</p>

We stated that all waters generated that in the Exhaust Shaft and Waste Shaft would be managed using this same technique. Based on these discussions, Mr. Zappe stated that he did not feel that the Exhaust Shaft catchment basin would be a RCRA tank.

Next the group discussed whether the shaft sumps would be considered a SWMU. Mr. Zappe stated that he did not believe that the sumps met the criteria for a SWMU, and the WIPP should evaluate carefully whether to classifying them as such.

In closing Mr. Zappe said he would provide written comments on the Release Assessment/Corrective Action Work Plan to the EPA Region VI, and requested that we provide him with copies finalized catchment basin design drawings. We committed to providing copies of final as built drawings to Mr. Zappe and adjourned the meeting at approximately 10:30 a.m.

W. H. Bodily

James B. ..., date, 9/15/95

D. C. Robertson

D. C. Robertson, date, 9/15/95



**Westinghouse
Electric Corporation**

Government Operations

Waste Isolation Division

**Box 2078
Carlsbad New Mexico 88221**

**Trip Report: September 1, 1995 meeting
 Mr. Steve Zappe, NMED Hazardous and
 Radioactive Materials Bureau**

On September 1, 1995, Mr. Warren Bodily and Mr. Dan Robertson met with Mr. Steve Zappe to discuss NMED comments on the WIPP Voluntary Release Assessment/Corrective Action Work Plan, and the WID's management of Lead contaminated waters in the WIPP Waste Handling Shaft. The meeting lasted from approximately 9:00 a.m. until 10:30 a.m.

Mr. Zappe stated that he had briefly reviewed the Voluntary Release Assessment Work Plan, and would provide formal comments to Mr. Rafael Casanova at EPA Region VI. He went on to state that the NMED - DOE WIPP Oversight Bureau should also have the opportunity to review and comment on the plan. Mr. Robertson asked if the NMED had any comments on the DOE selection of constituents that were being sampled under the plan, and Mr. Zappe responded that the constituent list presented in the plan were adequate for the evaluation of the WIPP Solid Waste Management Units (SWMUs).

We went on to discuss the recent increase in flow into the WIPP Exhaust Shaft and Waste Handling Shaft sumps, and the resulting increase in Lead concentrations seen in samples collected to characterize the increased flow. We discussed the options being evaluated to mitigate the hazardous concentrations of Lead found in these samples. We discussed that how these wastes were currently being managed as hazardous wastes in the WIPP 90-day accumulation area, and that we were evaluating several types of in container treatment methods. We stated that these preliminary plans ranged from adding lime and a flocculent to each barrel to precipitate out metals constituents, to the installation of a small precipitation/filtration units to remove Lead constituents in the form of a filter cake, and then sending the clean water to the WIPP sewage system.

Mr. Bodily presented the conceptual design drawing for a medium density PVC collection basin to capture waters flowing into the Exhaust Shaft. Discussion focused on whether this basin would be considered a tank under RCRA. We discussed how currently we manage all waters collected in our equipment wash bay on a 24 hour (single shift) basis. All wash waters are removed from the wash bay as they are generated and placed in a SAA container. Using this management method the NMED determined that wash bay was not a RCRA tank.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME: U. S. Department of Energy
Waste Isolation Pilot Plant

EPA ID NO: NM418901391088



U.S. ENVIRONMENTAL PROTECTION AGENCY
1995 Hazardous Waste Report



WASTE GENERATION AND MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 16 of the 1995 Hazardous Waste Report booklet before completing this form.

Sec. I A. Waste description - instruction page 18.
TCLP - Toxic Waste Water (Brine) from underground dewatering operations, contains traces of lead.

B. EPA hazardous waste code Page 18.
D008 N.A.
N.A. N.A. N.A.

C. State hazardous waste code Page 18.

D. SIC code Page 19. 4953

E. Origin code Page 19 System Type N.A.

F. Source code Page 20. A99

G. Point of measurement Page 20. 1

H. Form code Page 20. 113

I. RCRA - radioactive waste Page 20. 2

Sec. II A. Quantity generated in 1994 Instruction Page 21. _____

B. Quantity generated in 1995 Page 21. 00129216150

C. UOM Page 21. 1 Density N.A.
 1 Imperial 2 SI

D. Did this site do any of the following to the waste: on site, dispose on site, recycle on site, or discharge to a sewer/OTW? Page 21.
 1 Yes (CONTINUE TO SYSTEM 1)
 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1
On-site process system type Page 22. M
Quantity treated, disposed, or recycled on site in 1995 _____

ON-SITE PROCESS SYSTEM 2
On-site process system type Page 22. M
Quantity treated, disposed, or recycled on site in 1995 _____

Sec. III A. Was any of this waste shipped off-site in 1995? 1 Yes (CONTINUE TO BOX B)
 2 No (SKIP TO SEC. IV)
Instruction page 22.

Site 1 B. EPA ID No. of facility waste was shipped to Page 22. GA17000646117

C. System type shipped to Page 22. M077

D. Off-site availability code Page 22. 1

E. Total quantity shipped in 1995 Page 22. 102700

Site 2 B. EPA ID No. of facility waste was shipped to Page 22. NJ1002385730

C. System type shipped to Page 22. M077

D. Off-site availability code Page 22. 1

E. Total quantity shipped in 1995 Page 22. 25349

Sec. IV A. Did new activities in 1995 result in minimization of this waste? 1 Yes (CONTINUE TO BOX B)
 2 No (THIS FORM IS COMPLETE)
Instruction page 24.

B. Activity Page 24. M M
M M

C. Other effects Page 25. 1 Yes
 2 No

D. Quantity recycled in 1995 due to new activities Page 25. _____

E. Activity/production index Page 25. _____

F. 1995 source reduction quantity Page 24. _____

Comments: